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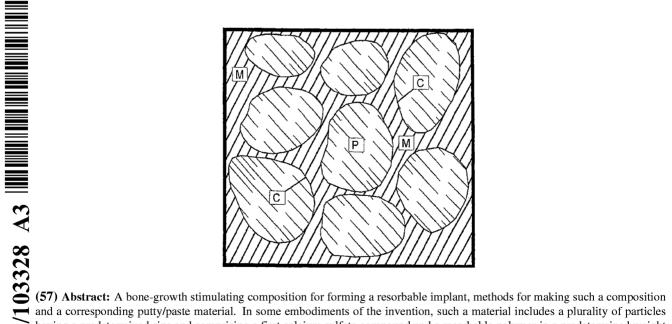
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(54) Title: TIME RELEASE CALCIUM SULFATE MATRIX FOR BONE AUGMENTATION



and a corresponding putty/paste material. In some embodiments of the invention, such a material includes a plurality of particles having a predetermined size and comprising a first calcium sulfate compound and a resorbable polymer in a predetermined weight ratio. Methods for making such a material include rotating calcium sulfate powder in a drum at a first predetermined drum speed, spraying of a resorbable polymer solution at a predetermined rate on the calcium sulfate powder over a predetermined period of time and drying the resulting particles. Such compositions allow resorption rates of the implant composition in vivo to be controlled, and my vary between eight and twenty-four weeks (for example), which can be matched to substantially correspond to a rate of bone growth in a particular application. The implant composition of the present invention can be used for the repair, augmentation, and other treatment of bone.



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A. CLASSIFICATION OF SUBJECT MATTER INV. A61L27/02 A61L27/34 A61L27/58 A61L27/44 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) A61L A61F C08L Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. 1-15, χ WO 03/011957 A (BIOLOK INTERNATIONAL INC 20-22, [US]; RICCI JOHN L [US]; ALEXANDER HAROLD 24,26, [US) 13 February 2003 (2003-02-13) 28-60 Υ 16-19, 23, 25, 27 page 3, paragraphs 1,2 page 9, paragraphs 2,3 claims 1-8,10-13,17 US 2002/110541 A1 (PETERSEN DONALD W [US]) 16-19.15 August 2002 (2002-08-15) 23, 25, 27 page 1, paragraphs 14,15 claims 1-4 -/--X X See patent family annex. Further documents are listed in the continuation of Box C. Special categories of cited documents: later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance invention *E* earlier document but published on or after the international 'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) 'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-ments, such combination being obvious to a person skilled *O* document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed in the art. "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 29/07/2008 22 July 2008 Authorized officer Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Dudás, Eszter Fax: (+31-70) 340-3016

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